

Application No.: 10/826,599

Docket No.: MWS-081

REMARKS

In this Response, Applicant amends claims 1-14, 16, 18-25 and 28. Claims 1-30 are currently pending, of which claims 1, 19, 23, 24, 25 and 28 are independent. No new matter has been added.

I. Claim Amendments

Claims 1-14, 16, 18-25 and 28 have been amended to correct clerical errors and improve clarity. No new matter has been added. These amendments have not been made to distinguish over the art of record or to address issues of patentability of the claims.

Independent claims 1, 19, 23, 24, 25 and 28 have also been amended to recite a "simulatable block diagram model" rather than a "graphical model." Support for these amendments can be found at least at page 6, lines 28 – page 7, line 8. No new matter has been added.

Independent claims 23 and 24 have further been amended to recite a "processor of the electronic device." Support for these amendments can be found at least at page 6, lines 20-23. No new matter has been added.

II. Claim Rejections under 35 U.S.C. § 101

The Examiner rejects claims 23 and 24 under 35 U.S.C. § 101 because the claims are allegedly directed to non-statutory subject matter (Office Action, paragraph 5). More specifically, the Examiner states that "the body of the claim can be implemented using software means only (i.e. computer programs per se) and does not necessarily require the use of hardware to execute" (Office Action, paragraph 5).

Applicant has amended independent claims 23 and 24 to recite "*A computer-readable storage medium for use with an electronic device having a processor, the medium storing instructions executable by the processor of the electronic device.*" These amendments make clear that the instructions are executable by the processor of an electronic device. As such, Applicant believes that the amended claims are directed to statutory subject matter, and

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respectfully requests reconsideration and withdrawal of the 35 U.S.C. § 101 rejections of claims 23 and 24.

III. Double Patenting

The Examiner rejects claims 1-30 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-26 of co-pending United States Patent Application Number 10/698,820 (hereinafter the '820 application) in view of U.S. Patent Number 7,069,542 to Daly (hereafter "Daly") (Office Action, paragraph 7). Applicant respectfully disagrees with the Examiner's statement that the claims of the instant application are obvious in view of Daly and the '820 application.

In formulating this rejection, the Examiner argues that Daly suggests the generation of a preview of code of a component of the block diagram (see Office Action, pages 5 and 6). Applicant respectfully points out that the Examiner's allegation is incorrect for several reasons. First, Daly fails to disclose or suggest such a preview of code representative of a component of the block diagram as required by claims 1-18, 23, and 25-27. Second, Daly fails to disclose or suggest a preview of code representative of a setting of a component for a component in the block diagram as required by claim 19-22, 24 and 28-30. Third, Daly fails to disclose or suggest a simulatable block diagram as required by claims 1-30. Applicant respectfully requests the Examiner to reconsider and to withdraw the nonstatutory obviousness-type double patenting of claims 1-30.

In order to expedite prosecution of the instant application, Applicant is filing a terminal disclaimer herewith even though Applicant does not agree with the nonstatutory obviousness-type double patenting rejection issued by the Examiner. The terminal disclaimer disclaims the terminal part of the statutory term granted on the instant application which would extend beyond the expiration date of the full statutory term on any patent granted on U.S. Patent Application Number 10/698,820. It is believed that this terminal disclaimer addresses the outstanding obviousness-type double patenting rejection.

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IV. Rejection of Claims 1-5, 7, 8, 10-14 and 16-30 under 35 U.S.C. § 102(e)

In the Office Action, claims 1-5, 7, 8, 10-14 and 16-30 are rejected under 35 U.S.C. § 102(e) as being anticipated by Daly (Office Action, paragraph 9). Applicant respectfully traverses this rejection as set forth below.

A. Claim 1

Amended independent claim 1 recites:

"In a graphical modeling environment, a method comprising:
receiving a user request to define a property for a component of a
simulatable block diagram model;
*generating a preview of code representative of the component of the
block diagram model prior to generation of code for the block diagram model*;
and
displaying the preview of the code on a graphical user interface."
[emphasis added]

Claim 1 has been amended herein to recite a "simulatable block diagram model," rather than a "graphical model," as claim 1 previously recited.

Applicant respectfully submits that the Daly reference fails to disclose every feature of amended independent claim 1. For example, the Daly reference fails to disclose at least the following features of amended independent claim 1: (a) "*a simulatable block diagram model*" and (b) "*generating a preview of code representative of the component of the block diagram model prior to generation of code for the block diagram model.*"

The Examiner, at paragraph 9 of the Office Action, states:

"Daly discloses... receiving a user request to define a property for a component of a graphical model; (Col 7:17-30, "... is created or modified by a user...")
generating a preview of code representative of the component of the block diagram prior to generation of code for the graphical model; (Col 6:15-26, "... the notify model is a graphical representation of a user interface...")
and displaying the preview of the code on a graphical user interface. (Col 6:20-26, "...the source code files generated by the development environment based on the graphical/notify model...")

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Applicant disagrees with the Examiner's statement because Daly, contrary to the Examiner's interpretation, does not disclose the features of claim 1.

For example, Daly fails to disclose "*a simulatable block diagram model*," as recited in amended claim 1. The Examiner cites column 7, lines 17-30 of Daly as disclosing the previously recited (i.e., in the previous version of claim 1) "graphical model." Applicant respectfully submits that the cited portion of Daly fails to disclose the amended feature of "*a simulatable block diagram model*," as set forth below.

Daly, at column 7, lines 17-30, recites:

"Operations 400 are performed to generate mapping lookup table 312 as notify model 306 is modified. Initially, an object in notify model 306 (e.g., an EJB or a GUI screen) is created or modified by a user (S402). As a result of the modifications by the user, the changes in an object in notify model 306 are propagated to one or more objects forming target object 308 (S404). In some embodiments, the changes will not propagate to target model 308 until an indication to do so is made by the user. Such an indication may be made, for example, by the user saving or storing a modified object in notify model 306. As such several modifications to a single object in notify model 306 may be propagated contemporaneously to one or more objects in target model 308."

Daly, at column 7, lines 17-30, discusses modifying a notify model and propagating the changes to its corresponding target model. A notify model and its corresponding target model represent the same data but in different formats (Daly, column 6, lines 9-10). Daly mentions a graphical user interface (GUI) screen as an example of an object in the notify model (Daly, column 7, lines 17-30). In some embodiments, changes made to an object, like a GUI screen, in the notify model may be propagated automatically to one or more objects in the target model (Daly, column 7, lines 17-30). In other embodiments, the changes may be propagated from the notify model to the target model only after the user makes an indication to do so (Daly, column 7, lines 17-30).

This portion of Daly in no way discloses "*a simulatable block diagram model*," as required by amended claim 1, because the notify and target models disclosed by Daly are not simulatable. The above portion of Daly teaches that a *notify model includes GUI screens* (Daly,

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column 7, lines 17-30), which are not simulatable. Daly also teaches that a *target model includes source code objects* (Daly, column 3, lines 1-4), which are also not simulatable. Daly does not disclose using *simulatable* block diagram models, as required by claim 1, as notify models or target models.

Daly also fails to disclose "*generating a preview of code representative of the component of the block diagram model prior to generation of code for the block diagram model*," as recited in claim 1. The Examiner cites column 6, lines 15-26 of Daly as disclosing this feature. Applicant respectfully disagrees as set forth below.

Daly, at column 6, lines 15-26, recites:

"For ease of understanding many examples included in the remainder of this specification describe an embodiment in which the notify model 306 is a graphical representation of a user interface created in a development environment such as the family of VisualAge development products available from IBM Corporation. The target model 308 represents, in the exemplary embodiment, the source code files generated by the development environment based on the graphical/notify model 306 created by the developer. As such, changes made by the developer to the notify model 306 (e.g., adding/changing/deleting a new user interface element) may propagate changes to target model 308 when changes are saved by the developer."

Daly, at column 6, lines 15-26, discusses an embodiment of a notify model and a target model. For example, an object in a notify model may be a graphical representation of a user interface, while the corresponding object in a target model may be the source code file automatically generated by a code generator (Daly, column 6, lines 15-26). Changes made by a developer to the objects in a notify model are propagated to the target model when the changes are saved (Daly, column 6, lines 15-26).

This portion of Daly in no way discloses "generating a preview of code representative of the component of the block diagram model prior to generation of code for the block diagram model," as required by claim 1. This portion of Daly does not address how to *generate* a preview of code in the target model corresponding to a single object in the notify model. In Daly, it appears that source code corresponding to all of the objects in the notify model already

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exists in the target model (Daly, column 6, lines 15-26). The source code is *simply modified* in response to a change in an object in the notify model (Daly, column 6, lines 15-26). In contrast, claim 1 requires *generating* a preview of code representative of the component of the block diagram model.

As discussed above, the Daly reference does not disclose each and every element of claim 1. Accordingly, Applicant respectfully requests the Examiner to reconsider and to withdraw the rejection of claim 1 under U.S.C. § 102(e).

B. Claims 2-5, 7, 8, 10-14 and 16-18

Claims 2-5, 7, 8, 10-14 and 16-18 depend from claim 1 and, as such, incorporate each and every element of claim 1. Therefore claims 2-5, 7, 8, 10-14 and 16-18 are allowable for at least the same reasons discussed above for claim 1. Accordingly, Applicant respectfully requests the Examiner to reconsider and to withdraw the rejection of claims 2-5, 7, 8, 10-14 and 16-18 under U.S.C. § 102(e).

C. Claim 19

Amended independent claim 19 recites:

“In a graphical modeling environment, a method comprising:
automatically updating a preview of code representative of a setting of a component of a simulatable block diagram model in response to a user altering the setting; and
displaying the updated preview of the code on a graphical user interface.”
[emphasis added]

Claim 19 has been amended to recite a “simulatable block diagram model.” Previously, claim 19 recited a “graphical model.”

Applicant respectfully submits that Daly does not disclose at least the following feature of claim 19: “*automatically updating a preview of code representative of a setting of a component of a simulatable block diagram model in response to a user altering the setting.*” As discussed above in connection with claim 1, Daly does not disclose that a notify model can

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be a simulatable block diagram model. Therefore, Daly cannot disclose this feature of claim 19. Applicant respectfully requests reconsideration and allowance of claim 19.

D. Claims 20-22

Claims 20-22 depend from claim 19 and, as such, incorporate each and every element of claim 19. Therefore claims 20-22 are allowable for at least the same reasons discussed above for claim 19. Accordingly, Applicant respectfully requests the Examiner to reconsider and to withdraw the rejection of claims 20-22 under U.S.C. § 102(e).

E. Claim 23

Amended independent claim 23 recites:

“A computer-readable storage medium for use with an electronic device having a processor, the medium storing instructions executable by the processor of the electronic device, the medium storing:
one or more instructions for receiving a user request to define a property for a component of a *simulatable block diagram model*;
one or more instructions for generating a preview of code representative of the component of the block diagram model prior to generation of code for the block diagram model; and
one or more instructions for displaying the preview of the code on a graphical user interface.” [emphasis added]

Claim 23 has been amended to recite a “simulatable block diagram model.” Previously, claim 23 recited a “graphical model.”

Applicant respectfully submits that the Daly reference fails to disclose or suggest at least the following feature of claim 23: “*one or more instructions for generating a preview of code representative of the component of the block diagram model prior to generation of code for the block diagram model*.” As discussed above in connection with claim 1, Daly fails to disclose or suggest generating a preview of code representative of a component in a block diagram model. In addition, Daly fails to disclose or suggest *a simulatable block diagram model*. Therefore, the Daly reference does not support a valid 35 U.S.C. § 102(e) rejection of

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claim 23. Applicant respectfully requests the Examiner to reconsider and to withdraw the rejection of claim 23 under U.S.C. § 102(e).

F. Claim 24

Amended independent claim 24 recites:

“A computer-readable storage medium for use with an electronic device having a processor, the medium storing instructions executable by the processor of the electronic device, the medium storing:

one or more instructions automatically updating a preview of code representative of a setting of a component of a simulatable block diagram model in response to a user altering the setting; and

one or more instructions displaying the updated code on a graphical user interface.” [emphasis added]

Claim 24 has been amended to recite a “simulatable block diagram model.” Previously, claim 24 recited a “graphical model.”

Applicant respectfully submits that Daly does not disclose at least the following feature of claim 24: “*one or more instructions automatically updating a preview of code representative of a setting of a component of a simulatable block diagram model in response to the user altering the setting.*” As discussed above in connection with claim 1, Daly does not disclose that a notify model can be a *simulatable block diagram model*. Therefore, Daly cannot disclose this feature of claim 24. Applicant respectfully requests reconsideration and allowance of claim 24.

G. Claim 25

Amended independent claim 25 recites:

“A system for generating and displaying a graphical programming application, comprising:

user-operable input means for inputting data to the graphical programming application;

a display device for displaying *a simulatable block diagram model*; and

an electronic device including memory for storing computer program instructions and data, and a processor for executing the stored computer program instructions, the computer program instructions including *instructions for*

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providing a code preview to a user on the display device, wherein the code preview displays code representative of a component of the block diagram model after the user defines a property of the component using the user-operable input means." [emphasis added]

Claim 25 has been amended to recite a "simulatable block diagram model." Previously, claim 25 recited a "graphical model."

Applicant respectfully submits that the Daly reference fails to disclose or suggest at least the following feature of claim 25: "*instructions for providing a code preview to a user on the display device, wherein the code preview displays code representative of a component of the block diagram model after the user defines a property of the component using the user-operable input means."* As discussed above in connection with claim 1, Daly fails to disclose or suggest generating a preview of code representative of a component in a block diagram model, or a simulatable block diagram model. Therefore, the Daly reference does not support a valid 35 U.S.C. § 102(e) rejection of claim 25. Applicant respectfully requests the Examiner to reconsider and to withdraw the rejection of claim 25 under U.S.C. § 102(e).

H. Claims 26 and 27

Claims 26 and 27 depend from claim 25 and, as such, incorporate each and every element of claim 25. Therefore claims 26 and 27 are allowable for at least the same reasons discussed above for claim 25. Accordingly, Applicant respectfully requests the Examiner to reconsider and to withdraw the rejection of claims 26 and 27 under U.S.C. § 102(e).

I. Claim 28

Amended independent claim 28 recites:

"A system for generating and displaying a graphical programming application, comprising:
 user-operable input means for inputting data to the graphical programming application;
 a display device for displaying *a simulatable block diagram model*; and
 an electronic device including memory for storing computer program instructions and data, and a processor for executing the stored computer program

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instructions, the computer program instructions including *instructions for automatically updating code representative of a setting for a component in the block diagram model in response to the user altering the setting* and displaying the updated code.” [emphasis added]

Claim 28 has been amended to recite a “simulatable block diagram model.” Previously, claim 28 recited a “graphical model.”

Applicant respectfully submits that Daly does not disclose at least the following feature of claim 28: “*instructions for automatically updating code representative of a setting for a component in the block diagram model in response to the user altering the setting*,” wherein the block diagram model is “simulatable.” Daly does not disclose that a notify model can be a *simulatable block diagram model*. Therefore, Daly cannot disclose this feature of claim 28. Applicant respectfully requests reconsideration and allowance of claim 28.

J. Claims 29 and 30

Claims 29 and 30 depend from claim 28 and, as such, incorporate each and every element of claim 28. Therefore claims 29 and 30 are allowable for at least the same reasons discussed above for claim 28. Accordingly, Applicant respectfully requests the Examiner to reconsider and to withdraw the rejection of claims 29 and 30 under U.S.C. § 102(e).

V. Rejection of Claims 6, 9 and 15 under 35 U.S.C. § 103

A. Claims 6 and 15

Claims 6 and 15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Daly in view of United States Patent Number 6,175,948 to Miller (hereafter “Miller”). Applicant respectfully traverses this rejection as set forth below.

Claims 6 and 15 depend from and include the features of claim 1.

Daly has been summarized above in the rejection of claim 1.

Daly fails to disclose or suggest the above features of claim 1, because the reference does not address *generating a preview* of code representative of a component of the block diagram

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model. The teachings of Miller do not supplement Daly in such a way as to cure the failure of Daly to disclose or suggest the above features of claims 6 and 15.

The Miller reference relates to a waveform compiler method that employs top-down system decomposition coupled with component based design development (Miller, abstract). Miller captures a user design in a series of parameterized models (Miller, abstract). Miller does not address *generating a preview* of code representative of a component of the block diagram model. Therefore, Daly and Miller, alone or in any reasonable combination, do not support a valid 35 U.S.C. § 103(a) rejection of claims 6 and 15. Accordingly, Applicant respectfully requests reconsideration and allowance of claims 6 and 15.

B. Claim 9

Claim 9 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Daly in view of United States Patent Publication Number 2005/0114832 to Manu (hereafter "Manu"). Applicant respectfully traverses this rejection as set forth below.

Claim 9 depends from and includes the features of claim 1.

Daly has been summarized above in the rejection of claim 1.

Daly fails to disclose or suggest the above features of claim 1, because the reference does not address *generating a preview* of code representative of a component of the block diagram model. The teachings of Manu do not supplement Daly in such a way as to cure the failure of Daly to disclose or suggest the above features of claim 9.

The Manu reference relates to the modeling of code elements and structure of a programming code which enables code structure and flow to be visualized (Manu, abstract). Manu eliminates language-specific aspects (Manu, abstract). For example, one or more programming languages for which code is to be generated are selected, and code is generated from a functional model (Manu, abstract). Manu does not address *generating a preview* of code representative of a component of the block diagram model. Therefore, Daly and Manu, alone or in any reasonable combination, do not support a valid 35 U.S.C. § 103(a) rejection of claim 9. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 9.

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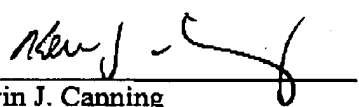
CONCLUSION

In view of the above comments, Applicant believes the pending application is in condition for allowance and urge the Examiner to pass the claims to allowance. Should the Examiner feel that a teleconference would expedite the prosecution of this application, the Examiner is urged to contact the Applicant's attorney at (617) 227-7400.

Please charge any shortage or credit any overpayment of fees to our Deposit Account No. 12-0080, under Order No. MWS-081. In the event that a petition for an extension of time is required to be submitted herewith, and the requisite petition does not accompany this response, the undersigned hereby petitions under 37 C.F.R. § 1.136(a) for an extension of time for as many months as are required to render this submission timely. Any fee due is authorized to be charged to the aforementioned Deposit Account.

Dated: January 7, 2008

Respectfully submitted,

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